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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/974,030

10/10/2001

Fabien Buda

JNP-0186

7530

44987

7590

08/23/2005

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EXAMINER

KIM, KEVIN

ART UNIT

PAPER NUMBER

2638

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/974,030

Applicant(s)

BUDA, FABIEN

Examiner

Kevin Y. Kim

Art Unit

2638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-26 is/are allowed.
- 6) ☒ Claim(s) 1 and 27-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed June 6, 2005 have been fully considered but they are not persuasive.

First of all, applicant corrected noted that the Rader et al patent cited in the previous Office action should have been cited under *35 USC § 102 (e)* rather than under *35 USC § 102 (b)*. In this action, its parent patent US 5,579,341 issued on November 26, 1996 is cited *35 USC § 102 (b)*.

Turning to the merits of the response, applicant asserts that the patent fails to teach the newly added limitation "amplifying a first number of input signals" prior to digitization. However, Rader et al discloses an RF receiver, which requires an amplifier at the front end. Thus, though not described, amplifying the received input signals is inherent as established below.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al (US 5,579,341) in view of Kim (US 6,459,679). This is a multiple reference 35 U.S.C. 102 rejection, held proper to show that a characteristic not disclosed in the reference is inherent. See MPEP 2131.01 (C).

Rader et al discloses a method of operating a digital tuner (see Fig. 2), comprising:

- amplifying each of a first number of input signals (not shown but inherent as established by Kim, see RF amplifier 215 in Fig. 5) received at respective antennas,
- digitizing the first number of input signals (from mixers 204) to create respective streams of digitized input data (output from A/D's 210),
- providing a second number of per-channel front-ends (digital down converters DDC's 214) for performing baseband translation and filtering in the digital domain and providing outputs suitable for subsequent demodulation, see Fig. 12 showing DDC performing baseband translation (1220) and filtering (1224), col. 5, lines 18-39 and col. 5, lines 53-55,
- providing each per-channel front-end with an input selector (1216 in Fig. 12) coupled to each of the streams of digitized input data; and
- configuring each of the per-channel front-ends to process a selected one of the first number of streams of digitized input data. See Fig. 12 showing a "per-channel front end" configured to process a selected digital input data stream.

4. Claims 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Beamish et al (US 6,445,732).

Claim 1.

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Beamish et al discloses a device, see Fig.2, comprising ;  
a variable gain amplifier (290) coupled to the input of an analog-to-digital converter (220) and  
a scaler (294) to receive a digital stream of the A/D converter to dynamically scale the digital stream of data to an essentially same peak magnitude.

Claim 2.

See a baseband converter (240) coupled to receive the scaled digital stream of data.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beamish et al, as applied to claim 28 above, in view of O'Donnell et al (US 4,983,970).

Beamish discloses all the subject matter claimed but is silent as to whether “a plurality of filtering and decimation pipelines” are coupled to the baseband converter. O'Donnell et al teaches “a plurality of filtering and decimation pipelines” are coupled to the baseband converter. See Fig.5. Thus, it would have been obvious to one skilled in the art at the time the invention was made to couple a plurality of filtering and decimation pipelines as necessary to process the demodulated signals as taught by O'Donnell et al.

***Allowable Subject Matter***

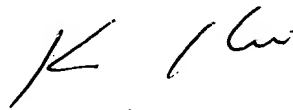
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7. Claims 2-26 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KEVIN KIM  
PATENT EXAMINER